

_17. IF RAILWAYS WANT TO USE OTHER THAN ROSO STANDARD ARRANGEMENT OF SACRIFICIAL SHUTTERING THEN SUITABLE TYPE OF PERMANENT SHUTTERING (CORROSION RESISTANT) SHALL BE PROVIDED BELOW RCC DECK SLAB

- 15. FOR WELDING WORK THE PROVISION OF IRS WELDED BRIDGE CODE WILL BE APPLICABLE IN CASE OF STEEL OF IS: 2062 E250. IN CASE OF STAINLESS STEEL IS USED THEN WELDING CAN BE DONE IN ACCORDANCE WITH AWS D1.6. SUBMERGED ARC WELDING TO BE DONE FOR THE FABRICATION OF MEMBERS.
- 14. THE DETAILED DIMENSION GIVEN IN BRACKET CONNECTION JOINT FOR SHUTTERING OF CANTILEVER PORTION HAS BEEN SHOWN CONSIDERING THE LOCATION OF BRACKET CONNECTION AS THE INTERMEDIATE STIFFENER LOCATION. IN CASE OF BRACKET CONNECTION AT END STIFFENER LOCATION, SOME OF THE DIMENSIONS RELATED TO THIS CONNECTION MIGHT CHANGE. SO BEFORE STARTING FABRICATION WORK OF THE BRACKET CONNECTION PROPER TEMPLATING SHALL BE DONE TO ENSURE THE CORRECTNESS OF DIMENSION.
- 13. FABRICATION OF SACRIFICIAL SHUTTERING TO BE DONE IN WORKSHOP ONLY ALONG WITH GIRDER OF ROB. SITE FABRICATION SHOULD NOT BE DONE.
- 12. OUTER MOST GIRDERS IS TO BE PROVIDED WITH INTERMEDIATE STIFFENER ON OUTER SIDE FOR PROVISION OF BRACKET CONNECTION FOR SACRIFICIAL SHUTTERING. IN CASE THERE IS INTERMEDIATE STIFFENER IS ONLY ON INNER SIDE OUTER MOST STIFFENER TO BE PROVIDED AT LOCATION EXACTLY OPPOSITE TO INNER STIFFENER IN CASE OF INTERMEDIATE STIFFENER IS AVAILABLE ONLY IN INNER
- 11. FOR LOCATION OVER SPLICES OF ROBS (IN INNER BAYS OF ROB), THE LENGTH OF SACRIFICIAL SHUTTERING SHALL BE EQUAL TO THE LENGTH OF THE SPLICE JOINT. AS THERE WILL BE HEIGHT DIFFERENCE IN SHUTTERING BETWEEN THE NORMAL GIRDER LOCATION AND SPLICE LOCATION, PROPER ARRANGEMENT FOR SEALING THE GAP BETWEEN THE SACRIFICIAL SHUTTERING AT JOINT SHALL BE DONE TO AVOID ESCAPE OF WATER AND CONCRETE FROM IT.
- 10. THE LENGTH OF SACRIFICIAL SHUTTERING ALONG THE LONGITUDINAL DIRECTION WILL HAVE TO BE DECIDED ON THE BASIS OF CAPACITY OF MACHINERY FOR LIFTING FABRICATED SACRIFICIAL SHUTTERING SPAN. PROPER LEAKAGE PROOFING TO BE DONE BETWEEN TWO PARTS OF SACRIFICIAL SHUTTERING SO THAT WATER OF CONCRETE IS NOT ESCAPED FROM THIS JOINT.
- 9. THE ARRANGEMENT OF SACRIFICIAL SHUTTERING AT INNER BAYS OF ROB, SOME ADJUSTMENT IN THE SPACING OF THE CHANNEL SECTION SUPPORTING 6 mm THICK PLATE MAY BE REQUIRED TO DONE IN ORDER TO AVOID INFRINGEMENT WITH END FRAME OR INTERMEDIATE FRAME LOCATION. THE ADJUSTMENT IN THE SPACING OF CHANNEL SECTION SUPPORTING THE 6 mm. THICK PLATE MAY BE DONE ACCORDINGLY TO AVOID INFRINGEMENT PROVIDED THE SPACING OF CHANNEL SECTION SHALL NOT BE MORE THAN 500 mm IN ANY CASE.
- 8. DURING CONCRETING WORK IT SHOULD BE ENSURED THAT HEAPS OF CONCRETE ARE NOT FORMED AND REGULAR LEVELING OF CONCRETE SHOULD BE ENSURED TO AVOID HEAPS OF CONCRETE. THE THICKNESS OF CONCRETE AT ANY PLACE DURING CONCRETING \$HALL NOT EXCEED 300MM IN ANY CASE.
- 7. IN CASE OF ANY LOADS, OTHER THAN MENTIONED IN S.NO. 6. THE ABOVE DESIGN SHOULD BE CHECKED FOR SUCH ADDITIONAL LOAD BEFORE USING IT AT SITE.
- 6. THIS DRAWING IS SUITABLE FOR FOLLOWING LOADS AT THE TIME OF CONCRETING WORK AND TILL CONCRETE ATTAINS SUFFICIENT STRENGTH.
- (b) DEAD LOAD OF CONCRETE OF 10 kN/m2 AND LIVE LOAD OF 2 kN/m2 INCLUDING TOOLS PLANTS AND MACHINERY.
- (c) HOWEVER LIVE LOAD HAS NOT BEEN CONSIDERED WHILE DESIGNING THE SACRIFICIAL SHUTTERING FOR CANTILEVER PORTION. SO DURING THE CONCRETING IN CANTILEVER PORTION OF ROB THIS ASPECT SHOULD BE CONSIDERED ANY LIVE LOAD IN CANTILEVER PORTION TO BE AVOIDED.
- 5. ALL HOLE PROVIDED FOR BRACKET CONNECTION OUTER MOST GIRDER SHUTTERING ARE HOLE OF 23.5 DIA FOR 22 DIA BOLT. ALL THE BOLTS PROVIDED FOR BRACKET CONNECTION SHOULD BE HSFG BOLT OF PROPERTY CLASS 8.8.
- 4. (a) STRUCTURAL STEEL FOR FABRICATION IS AS PER IS:2062 E 250 (ANY GRADE) FOR ROBS LOCATED IN AREAS WHICH ARE NOT PRONE TO CORROSION.
- (b) FOR ROBS LOCATED IN CORROSION PRONE AREA STRUCTURAL STEEL SHOULD BE OF AUSTENITIC STAINLESS STEEL OF GRADE 304 IN CASE OF NON AVAILABILITY OF ABOVE GRADE OF STAINLESS STEEL ANY OTHER GRADE OF AUSTENITIC STAINLESS STEEL HAVING BETTER NOMINAL VALUE OF YIELD STRENGTH fy AND ULTIMATE TENSILE STRENGTH fu THAN THIS GRADE CAN BE USED.
- (c) THE DECISION REGARDING THE USE OF IS: 2062 E 250 STEEL OR STAINLESS STEEL SHALL BE DONE BY ENGINEER IN CHARGE (MIN. JAG OFFICER) CONSIDERING THE CORROSION PRONENESS OF SITE OF ROB.
- 3. (a) THIS DRAWING OF SACRIFICIAL SHUTTERING TO BE USED ONLY WITH THE ROB DRAWINGS OF RDSO SERIES DRAWING NO. RDSO/B-11773, RDSO/B-11774 AND RDSO/B-11775.
- (b) FOR OTHER ROB DRAWINGS, THIS DRAWING OF SACRIFICIAL SHUTTERING SHALL NOT BE USED DIRECTLY WITHOUT ENSURING ITS COMPATIBILITY WITH THE OTHER ROB DRAWING. CHECK FOR STRESSES IN STRUCTURAL MEMBER OF SHUTTERING AND STABILITY OF SHUTTERING TO BE ENSURED BEFORE USING IT.
- 2. THIS DRAWING FOR PROVIDING SACRIFICIAL SHUTTERING IN ROBS TO BE USED IN THOSE CASES WHERE PROVIDING NORMAL SHUTTERING (WHICH CAN BE REMOVED AFTER CASTING OF DECK SLAB) IS NOT JUSTIFIED. SO DECISION REGARDING PROVIDING SACRIFICIAL SHUTTERING IN PLACE OF NORMAL SHUTTERING TO BE TAKEN BY THE ENGINEER-IN-CHARGE OF THE PROJECT (MIN JAG OFFICER) CONSIDERING ALL THE ASPECT ASSOCIATED WITH ITS PROVISION.

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES.

SPECIFICATION SPECIFICATION

> मिलान एवं जांच -ATUL KUMAR VERMA (DBS/SB-II)

GUIDELINESFORFORMWORK

FALSEWORK AND TEMPORARY

HOT ROLLED MEDIUM AND HIGH

TENSILE STRUCTURAL STEEL -

HSFG BOLT DESIGN

IRS STEEL BRIDGE CODE 2017

FABRICATION SPECIFICATION IRS B1 - 2001

STRUCTURES

RAJEEV VERMA (EDBS)

(SIZE A1)

MILLIMETERS

25 0 25 50 75 100

100 0 100 200 300 400

SCALE

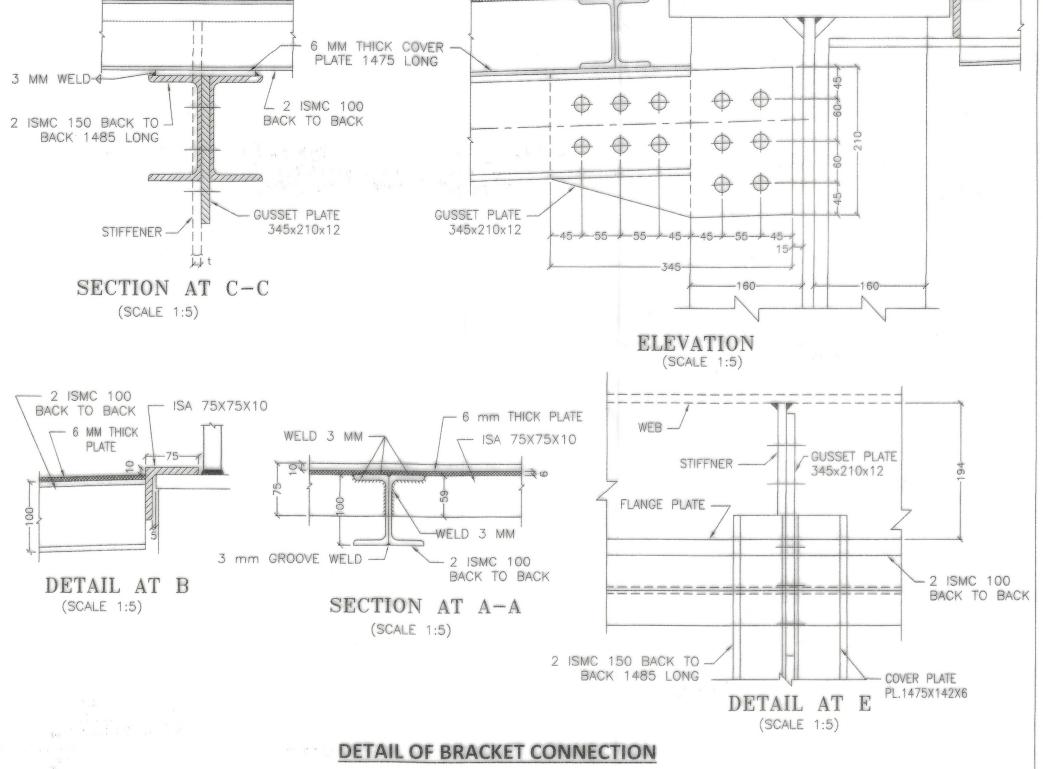
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ऑटो कैड फाइल सं - CBS-

NOTE NO. 17 ADDED.

ALT. DESCRIPTION DATE

नोटिफिकेशन सं -



6 mm THICK PLATE -

6 mm THICK PLATE -

S.No.	DIMENSION	DESCRIPTION
1.	d1, d2,	DISTANCE BETWEEN INTERMEDIATE SIFFENERS MAY VARY DEPENDING IN THE DRAWING OF ROB. BUT IT SHOULD NOT EXCEED 2000 mm IN ANY CASE.
2.	t	THICKNESS OF INTERMEDIATE OR END STIFFENER AS THE CASE MAY BE AS PER THE LOCATION OF BRACKET CONNECTION.
3.	Н	VERTICAL DISTANCE BETWEEN CENTRE LINE OF TWO BRACKET MEMBERS. IT WILL DEPEND ON THE HEIGHT OF INTERMEDIATE STIFFENERS. FOR RDSO/B - 11772 – 525 mm and RDSO/B - 11773, RDSO/B - 11774 & RDSO/B - 11775 – 850 mm.
4.	h	DISTANCE OF CENTRE LINE OF HORIZONTAL BRACKET MEMBER FROM TOP OF TOP FLANGE OF MAIN GIRDER. IT WILL DEPEND ON THE THICKNESS OF TOP FLANGE. FOR RDSO/B - 11772 – 166 mm and RDSO/B - 11773, RDSO/B - 11774 - 171 mm & RDSO/B - 11775 – 182 mm.
5.	L1	LENGTH OF INCLINED BRACKET MEMBER OUTSIDE FACE. IT WILL DEPEND ON H. FOR RDSO/B-11772 – 1505 mm and RDSO/B-11773,RDSO/B-11774 & RDSO/B-11775 – 1621 mm.
6.	L2	LENGTH OF INCLINED BRACKET MEMBER INSIDE FACE. IT WILL DEPEND ON H. FOR RDSO/B-11772 – 1007 mm and RDSO/B-11773, RDSO/B-11774 & RDSO/B-11775 – 1267 mm. LENGTH OF COVER PLATE FOR INCLINED MEMBER ON INSIDE FACE OF BRACKET CONNECTION WILL DEPEND ON L2. ON BOTH SIDE MEMBER 25 mm SHOULD BE LEFT AND REMAINING LENGTH MAY BE TAKEN FOR THE COVER PLATE.

यह ड्राइंग अनुसन्धान अभिकल्प एवं मानक संगठन (रेल मंत्रालय) लखनऊ - २२६०११ (भारत) की संपत्ति है तथा बिना पूर्व लिखित अनुमति के इसका इस्तेमाल नहीं होना चाहिए अथवा इसकी /इसके किसी भाग की प्रतिलिपि नहीं बनायी जानी चाहिए.

- ISA 75X75X10

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TYPICAL PLAN FOR SACRIFICIAL SHUTTERING ARRANGEMENT FOR COMPOSITE GIRDER TYPE ROBS

DATE 21-11-2019

CBS-0047

डिजाईन रजिस्टर सं. DD/2019/ PAGES डिजाईन- UMA SHANKER _ '9mg &au to

डिजाईन जांच- M. K. SHUKLA (ADE/SB-II)

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मिलान एवं जांच -

IRC-87-2011

IS: 2062-2011